

In the Claims

1. (original) An RF power amplifier comprising:
an integrated circuit;
a first power amplifier formed on the integrated circuit, the first power amplifier having a first switching device;
a second power amplifier formed on the integrated circuit, the second power amplifier having a second switching device, wherein the first and second power amplifiers are connected in a stacked arrangement between a voltage supply and ground; and
wherein the first and second switching devices are electrically isolated from each other.
2. (original) The RF power amplifier of claim 1, wherein the first and second switching devices are electrically isolated by isolating the bodies of the first and second switching devices.
3. (original) The RF power amplifier of claim 2, wherein the bodies of the first and second switching devices are isolated by forming one of the switching devices in a deep N-well.
4. (original) The RF power amplifier of claim 3, wherein a bias voltage is applied to the deep N-well.
5. (withdrawn) The RF power amplifier of claim 1, wherein the first and second switching devices are isolated by forming the integrated circuit using N⁻ starting material.
6. (withdrawn) The RF power amplifier of claim 2, wherein the bodies of the first and second switching devices are isolated using silicon on isolator technology.

7. (withdrawn) The RF power amplifier of claim 1, further comprising a third power amplifier formed on the integrated circuit, the third power amplifier having a third switching device, wherein the first, second and third switching devices are electrically isolated from each other.

8. (withdrawn) The RF power amplifier of claim 1, wherein the integrated circuit is implemented using CMOS technology.

9. (currently amended) A method of making a stacked RF power amplifier comprising: providing a CMOS integrated circuit; forming first and second stacked power amplifiers on the CMOS integrated circuit, wherein the first and second stacked power amplifiers each include at least one switching device; and electrically isolating a switching device of the first power amplifier with a switching device of the second power amplifier.

10. (original) The method of claim 9, wherein the step of electrically isolating a switching device of the first power amplifier with a switching device of the second power amplifier further comprises isolating the body of the first switching device from the body of the second switching device.

11. (original) The method of claim 10, further comprising forming a deep N-well in the integrated circuit.

12. (original) The method of claim 11, wherein the switching device of the second power amplifier is formed using the deep N-well to provide isolation from the switching device of the first power amplifier.

13. (original) The method of claim 12, further comprising applying a bias voltage to the deep N-well.

14. (withdrawn) The method of claim 10, further comprising using silicon on isolator techniques for isolating the body of the first switching device from the body of the second switching device

15. (original) A stacked RF power amplifier comprising:
an integrated circuit;
first and second stacked power amplifiers, wherein each power amplifier includes at least one switching device having a substrate; and
wherein the body of a switching device in the first power amplifier is electrically isolated from the body of a switching device in the second power amplifier.

16. (original) The stacked RF power amplifier of claim 15, wherein the isolation is provided by forming one of the switching devices in a deep N-well.

17. (original) The stacked RF power amplifier of claim 16, wherein a bias voltage is applied to the deep N-well.

18. (withdrawn) The stacked RF power amplifier of claim 15, wherein the isolation is provided by forming the integrated circuit using N⁺ starting material and forming the switching devices in P-wells.

19. (withdrawn) The stacked RF power amplifier of claim 15, wherein the isolation is provided by using a silicon on isolator technique.

20. (withdrawn) The stacked RF power amplifier of claim 15, wherein the integrated circuit is implemented using CMOS technology.

21. (currently amended) A stacked RF power amplifier formed on an integrated circuit comprising:

a first transistor formed on the integrated circuit, the first transistor having a transistor body;
a second transistor formed on the integrated circuit, the ~~first~~ second transistor having a transistor body; and

wherein the transistor body of the first transistor is isolated from the transistor body of the second transistor.

22. (original) The stacked RF power amplifier of claim 21, wherein the transistor bodies of the first and second transistors are isolated by forming one of the transistors in a deep N-well.

23. (withdrawn) The stacked RF power amplifier of claim 21, further comprising the steps of:

forming the integrated circuit using N⁺ starting materials; and
forming the first and second transistors in P-wells in the integrated circuit.

24. (withdrawn) The stacked RF power amplifier of claim 21, wherein the transistor bodies of the first and second transistors are isolated using silicon on isolator technology.

25. (withdrawn) The stacked RF power amplifier of claim 21, wherein the integrated circuit is implemented using CMOS technology.